OIPE
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PATENT & TRADEMARK OFFICE
JC1116

Fig. 1

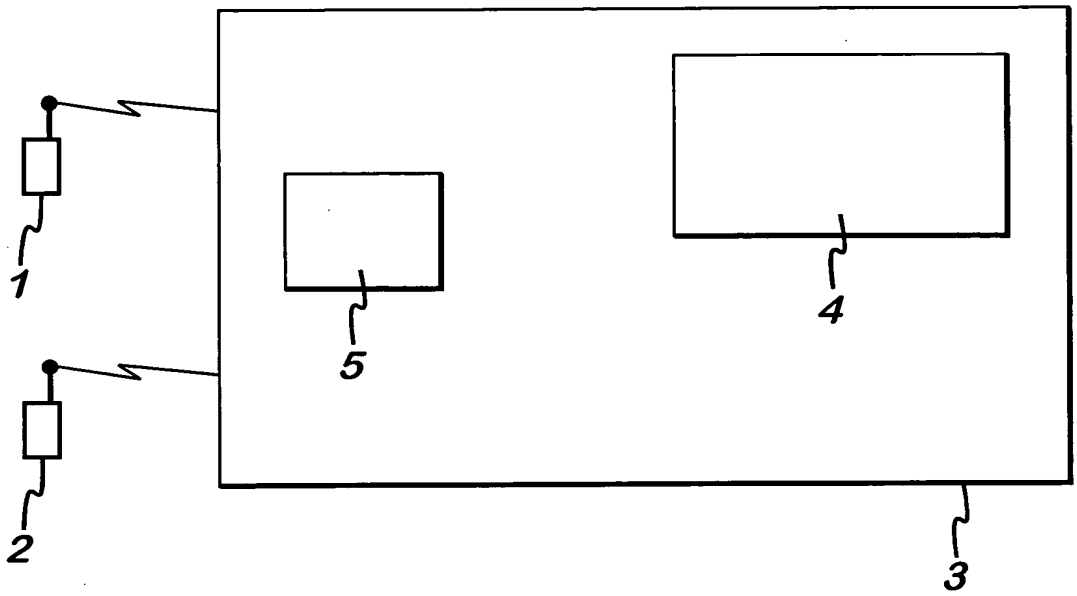


Fig. 2

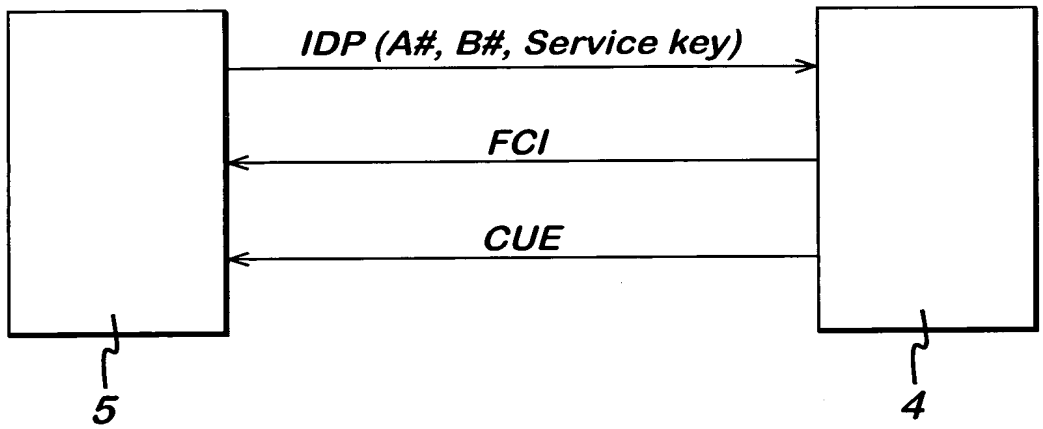


Fig. 3

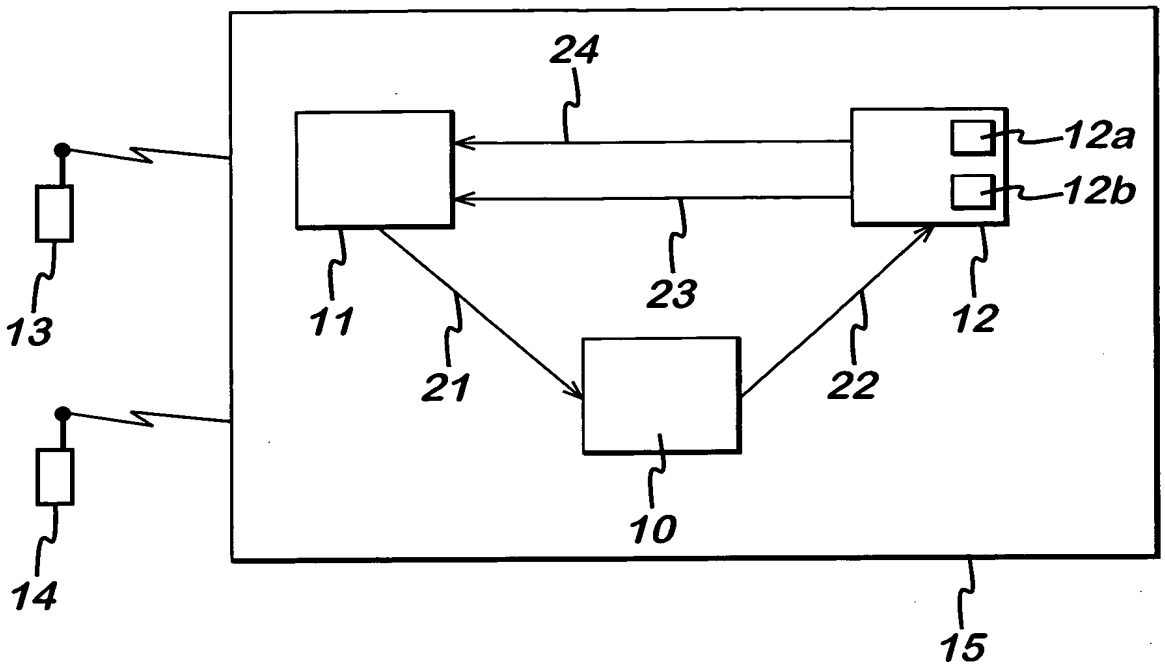
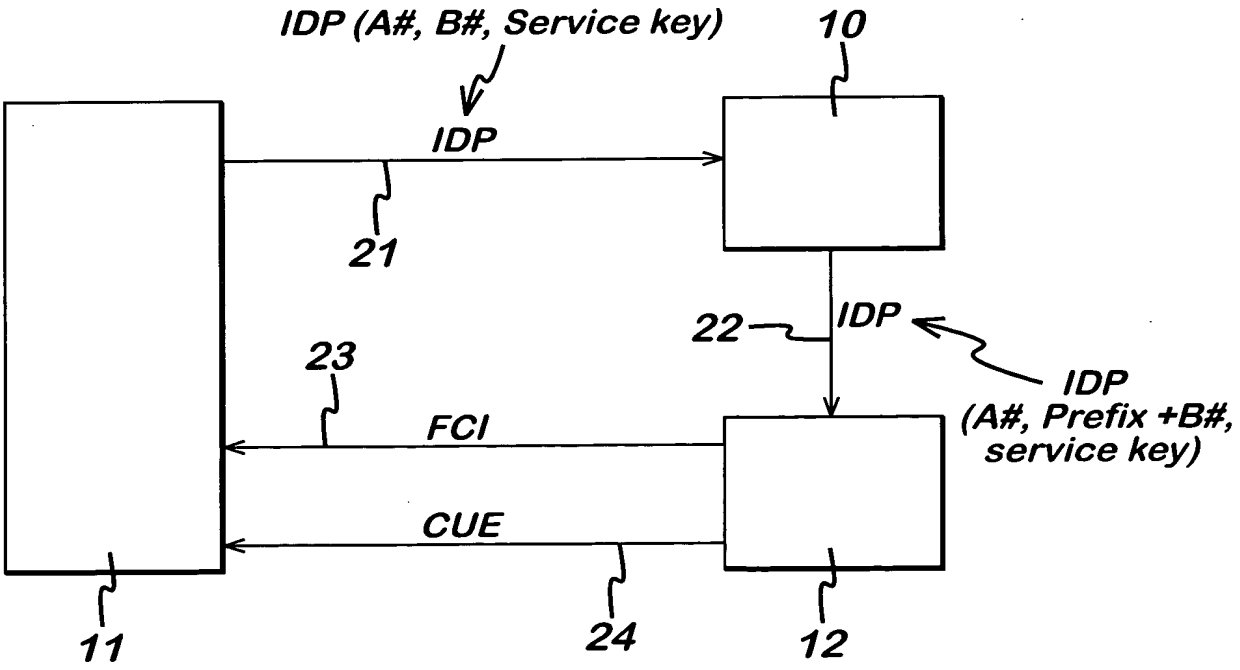
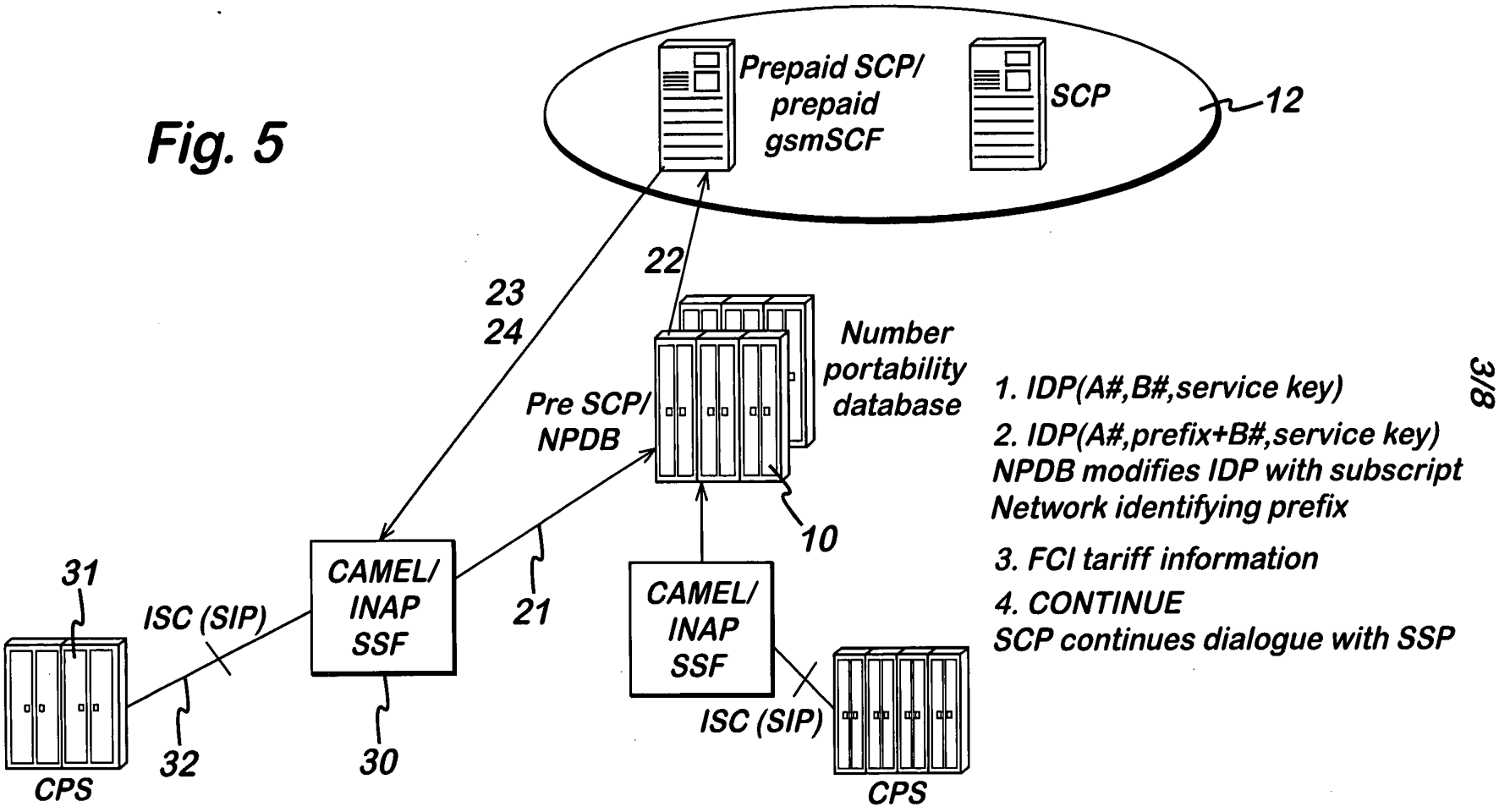

24
12a
12b
13
11
23
12
21
22
10
14
15

Fig. 4


IDP (A#, B#, Service key)
10
IDP
21
22
IDP
23
IDP
(A#, Prefix +B#,
service key)
FCI
CUE
11
24
12

All-IP ; NP with CAP/INAP

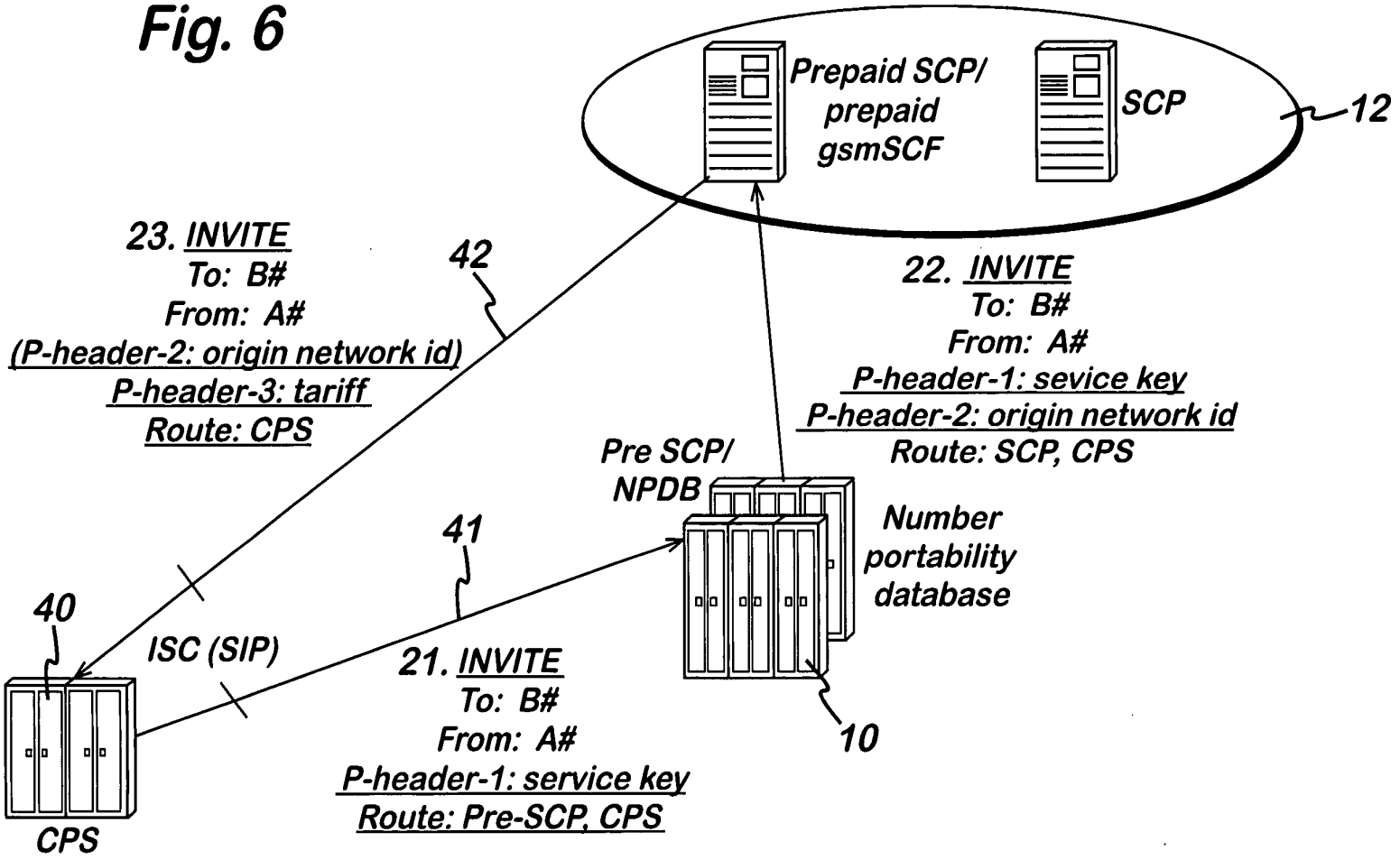
Fig. 5



Interrogating network entities that initiates service requests towards IN system

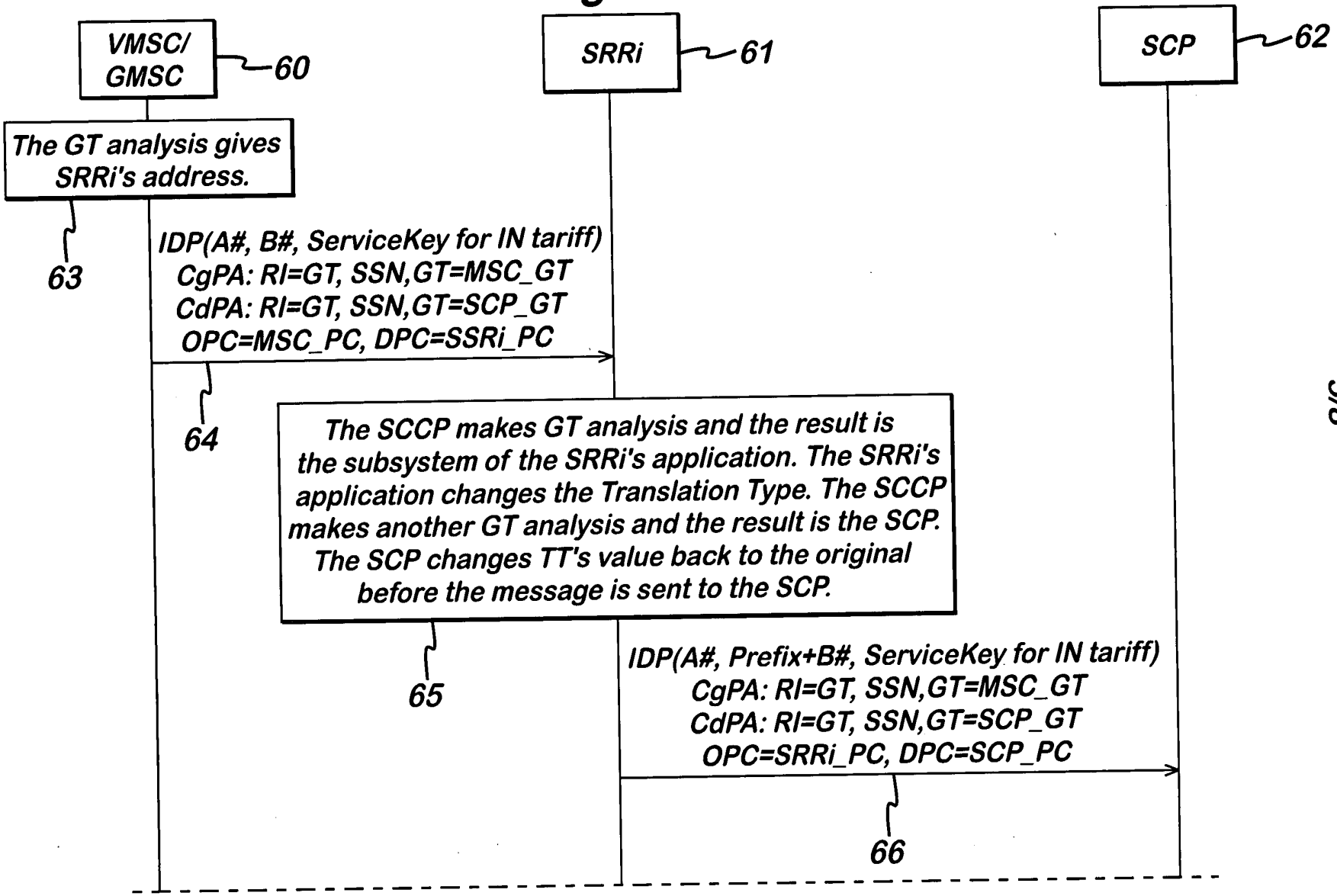
All-IP ; NP with ISC/SIP

Fig. 6



Interrogating network entities that initiates service requests towards IN system

Fig. 7a


VMSC/
GMSC
60
SRRi
61
SCP
62
The GT analysis gives
SRRi's address.
63
IDP(A#, B#, ServiceKey for IN tariff)
CgPA: RI=GT, SSN,GT=MSC_GT
CdPA: RI=GT, SSN,GT=SCP_GT
OPC=MSC_PC, DPC=SSRi_PC
64
The SCCP makes GT analysis and the result is
the subsystem of the SRRi's application. The SRRi's
application changes the Translation Type. The SCCP
makes another GT analysis and the result is the SCP.
The SCP changes TT's value back to the original
before the message is sent to the SCP.
65
IDP(A#, Prefix+B#, ServiceKey for IN tariff)
CgPA: RI=GT, SSN,GT=MSC_GT
CdPA: RI=GT, SSN,GT=SCP_GT
OPC=SRRi_PC, DPC=SCP_PC
66

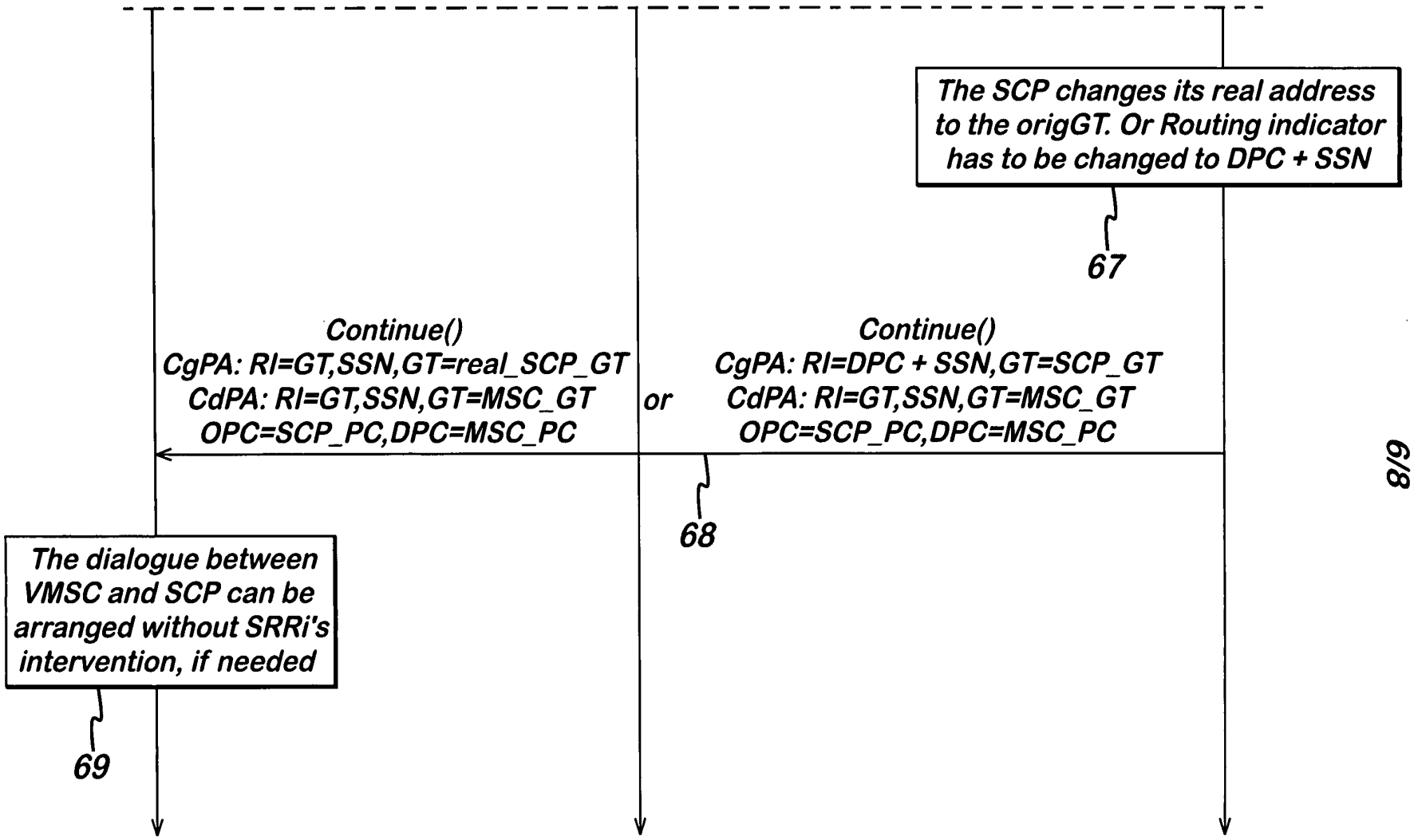

The SCP changes its real address to the origGT. Or Routing indicator has to be changed to DPC + SSN
67
Continue()
CgPA: RI=GT,SSN,GT=real_SCP_GT
CdPA: RI=GT,SSN,GT=MSC_GT
OPC=SCP_PC,DPC=MSC_PC
or
Continue()
CgPA: RI=DPC + SSN,GT=SCP_GT
CdPA: RI=GT,SSN,GT=MSC_GT
OPC=SCP_PC,DPC=MSC_PC
68
The dialogue between VMSC and SCP can be arranged without SRRi's intervention, if needed
69

Fig. 7a (Contd.)

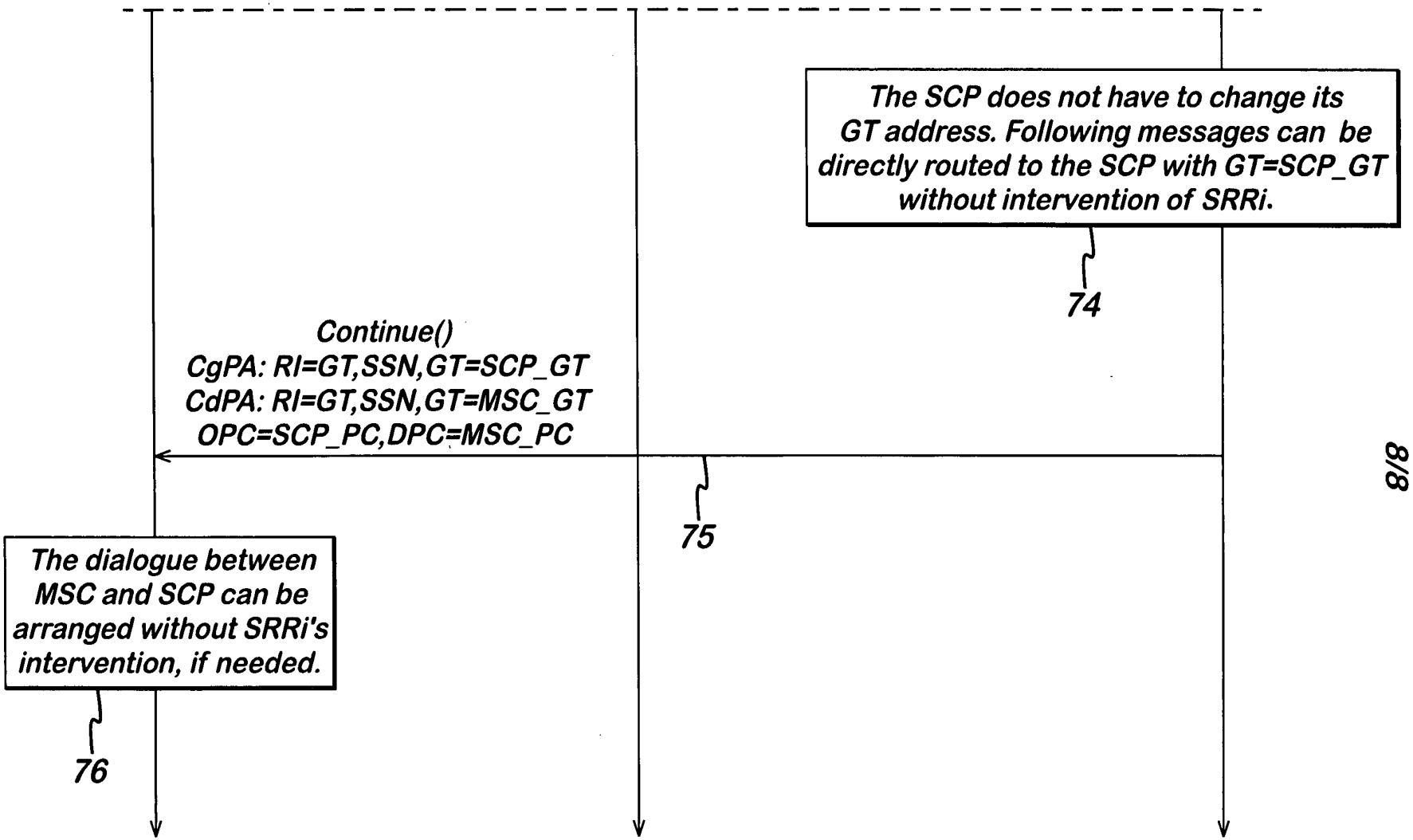
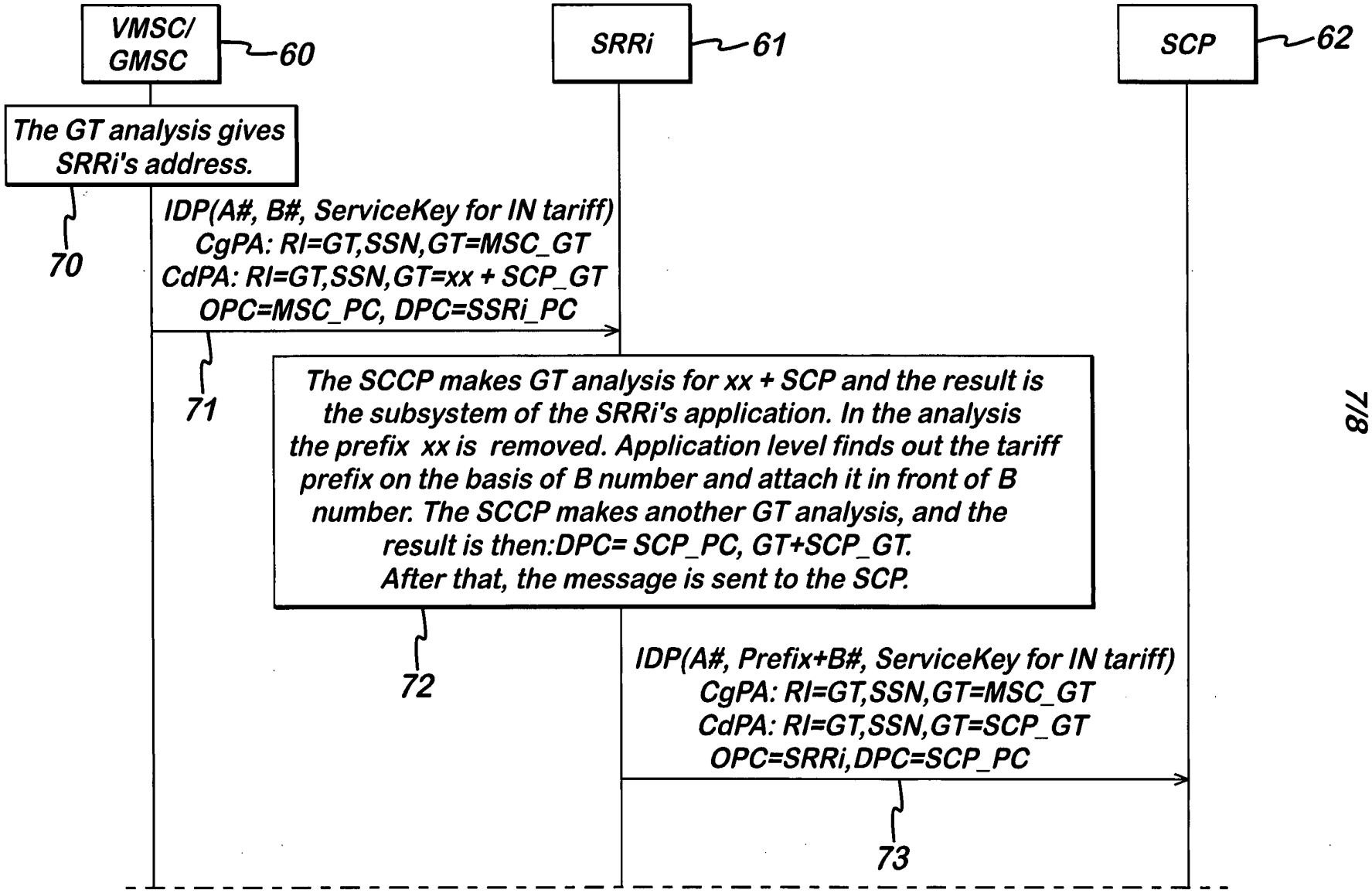

The SCP does not have to change its GT address. Following messages can be directly routed to the SCP with GT=SCP_GT without intervention of SRRi.
74
Continue()
CgPA: RI=GT,SSN,GT=SCP_GT
CdPA: RI=GT,SSN,GT=MSC_GT
OPC=SCP_PC,DPC=MSC_PC
75
The dialogue between MSC and SCP can be arranged without SRRi's intervention, if needed.
76

Fig. 7b (Contd.)

Fig. 7b


VMSC/ GMSC
60
SRRi
61
SCP
62
The GT analysis gives SRRi's address.
70
IDP(A#, B#, ServiceKey for IN tariff)
CgPA: RI=GT,SSN,GT=MSC_GT
CdPA: RI=GT,SSN,GT=xx + SCP_GT
OPC=MSC_PC, DPC=SSRi_PC
71
The SCCP makes GT analysis for xx + SCP and the result is the subsystem of the SRRi's application. In the analysis the prefix xx is removed. Application level finds out the tariff prefix on the basis of B number and attach it in front of B number. The SCCP makes another GT analysis, and the result is then:DPC= SCP_PC, GT+SCP_GT.
After that, the message is sent to the SCP.
72
IDP(A#, Prefix+B#, ServiceKey for IN tariff)
CgPA: RI=GT,SSN,GT=MSC_GT
CdPA: RI=GT,SSN,GT=SCP_GT
OPC=SRRi,DPC=SCP_PC
73